

IV. Remarks.

The Examiner entered the following rejections.

1. Claims 1, 2 and 4-7, 13-14, 16, 17, 19, 28, 31, 33, 34, 39 and 42 are rejected under 35 USC 103(a) as being unpatentable over Adifon et al (WO 99/43598) in view of Aulanko et al (WO 98/29326) and White et al (US 4,981,462).

A rejection based on 35 U.S.C. § 103 must rest on a factual basis, with the facts being interpreted without a hindsight reconstruction of the invention from the prior art. Thus, in the context of an analysis under § 103, it is not sufficient merely to identify one reference that teaches several of the limitations of a claim and another that teaches several limitations of a claim to support a rejection based on obviousness. This is because obviousness is not established by combining the basic disclosures of the prior art to produce the claimed invention absent a teaching or suggestion that the combination be made. Interconnect Planning Corp. v. Fiel, 774 F.2d 1132, 1143, 227 U.S.P.Q. (BNA) 543, 551 (Fed. Cir. 1985); In Re Corkhill, 771 F.2d 1496, 1501-02, 226 U.S.P.Q. (BNA) 1005, 1009-10 (Fed. Cir. 1985). The relevant analysis invokes a cornerstone principle of patent law:

That all elements of an invention may have been old (the normal situation), or some old and some new, or all new, is . . . simply irrelevant. Virtually all inventions are combinations and virtually all are combinations of old elements. Environmental Designs v. Union Oil Co. of Cal., 713 F.2d 693, 698 (Fed. Cir. 1983) (other citations omitted).

A patentable invention . . . may result even if the inventor has, in effect, merely combined features, old in the art, for their known purpose without producing anything beyond the results inherent in their use. American Hoist & Derek Co. v. Sowa & Sons, Inc., 220 U.S.P.Q. (BNA) 763, 771 (Fed. Cir. 1984) (emphasis in original, other citations omitted).

As the Court of Appeals for the Federal Circuit recently noted, “[w]hen a rejection depends upon a combination of prior art references, there must be some teaching, suggestion, or motivation to combine the references.” Ecologchem, Inc. v. Southern Calif. Edison, 56 U.S.P.Q. 2d 1065, 1073 (Fed. Cir. 2000). There must be a rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references. In re Dembiczak, 175 F.3d 994, 999 (Fed. Cir. 1999). This is because “combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability.” Id. Accordingly, to establish a rejection under 35 U.S.C. § 103, a person of ordinary skill in the art must not only have had some motivation to combine the prior art teachings,

but also some motivation to combine the prior art teachings in the particular manner claimed. See, e.g., In re Kotzab, 217 F.3d 1365, 1371 (Fed. Cir. 2000). In other words, the Examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. In re Rouffet, 149 F.3d 1350, 1357 (Fed. Cir. 1998).

None of the references teaches all of the limitations contained in independent claims 1, 13 and 28, namely, "the ribbed profile having a rib with an angle of approximately 90°". The Examiner's conclusion draws upon impermissible hindsight as well, namely, if the art teaches 40° and 60° then it must necessarily teach 90°.

White apparently teaches that at the time White was filed the art comprised 40° ribs, col. 4, lines 65-68; col. 5, line 61 to col. 6, line 4. White successfully argued that among other things 60° ribs an improvement over the art, col. 5, lines 10-28 and col. 6 lines 13-30. 60° represents a 50% increase in rib angle over the existing art at the time White was filed. Presumably White also had the opportunity to consider rib angles greater than 60°, but apparently did not.

The inventive belt represents another 50% leap over the art in rib angle to 90°. The Examiner recognizes in the office action that the claimed rib angle is not taught in any reference, instead relying on a combination of three references to provide the leap to the "fourth" namely, claim 1, in effect using the claimed invention to piece together the other references, using the invention to supply the missing piece. This is not permissible.

The change in geometry from the prior art of 60° to a rib angle of 90° is significant since the claimed rib angle represents an increase in torque and load carrying capacity. It results in other desirable effects as well, namely, low noise for lift systems. It also provides these benefits in a lesser width, thereby saving space and pulley width, each representing a cost savings over the prior art as well. As noted on page 5, lines 6-20 of the application:

"In the case of an approximate 90° rib angle, angle α increases a pulley engaging surface area by a factor of approximately $\sqrt{2}$. Increasing the belt surface engaging a pulley in this manner increases the torque which can be transmitted by a lift pulley. This in turn increases the load capacity of a lift system. Put another way, for a given load and torque the inventive belt will have a lesser width w than a prior art flat belt. This, in turn, results in a system with a

reduced space requirement as compared to a prior art flat belt system.

Use of the ribs also has the desirable effect of *decreasing an operating noise level* as the belt engages each pulley. The use of a grooved pulley with the inventive belt also eliminates the need for a rubber coating on the pulley.

The emphasized attributes are not suggested by either Adifon, Aulanko nor White for a 90° rib. None of the references provides a line of reasoning that would suggest that rib angles may simply be increased as suggested by the Examiner. There is no available statement that indicates that the technology of the inventive belt is simply a "numbers game". Had this been the case the inventive range would have been disclosed in the art. To date, over 9 references have been presented in this case in support of various 102 and 103 rejections, and yet none teaches the claimed rib angle. This is because each belt is engineered to solve a particular problem with a set of disclosed and claimed characteristics. In this case it is the novel use of 90° ribs to achieve enhanced torque and load capacity while achieving this result with reduced width and reduced noise. In fact, the references come up 50% short.

Claims 2, 4-7, 33 depend from claim 1.

Claims 14, 16, 17, 19, 34 depend from claim 13.

Claims 31 depend from claim 28.

Claims 39 - 42 are cancelled.

2. Claim 41 is rejected under 35 USC 103(a) as being unpatentable over Adifon et al over Aulanko et al and White et al, as applied to claim 40, and in further view of Stork (US 4,330,287).

Claim 41 is cancelled.

3. Claims 3, 15, 18, 21-22, 26 and 30, 35 are rejected under 35 USC 103(a) as being unpatentable over Adifon et al over Aulanko et al and White et al, as applied to claims 2 and 14 and 28, and in further view of Suhling (DE 3,934,654) and Siefert (US 3,662,596).

Claim 3 depends from claim 1. Claims 15, 18, 21-22 depend from claim 13.

As to claim 26, the arguments presented for rejection 1 above are applicable here as well, namely, the rib angle of 90° is not taught nor reasonably suggested by any reference.

Claims 30 and 35 depend from claim 26.

4. Claims 8-10, 20, 25 and 36-38 are rejected under 35 USC 103(a) as being unpatentable over Adifon et al over Aulanko et al and White et al, as applied to claims 7, 19 and 33, and in further view of Stork

Claims 8-10, 25, 36-38 depend from claim 1. Claim 20 depends from claim 13.

5. Claims 11 and 23 are rejected under 35 USC 103(a) as being unpatentable over Adifon et al over Aulanko et al and White et al, as applied to claim 1, and in further view of Siefert.

Claim 11 depends from claim 1. Claim 23 depends from claim 13.

6. Claims 12 and 24 are rejected under 35 USC 103(a) as being unpatentable over Adifon et al over Aulanko et al and White et al, as applied to claims 1 and 13, and in further view of Suhling.

Claim 12 depends from claim 1. Claim 24 depends from claim 13.

V. Fees

Any fees payable for this response, including the fee for the petition for extension of time may be deducted from deposit account 07-0475 in the name of The Gates Corporation.

Thank you for your attention to this case.

Sincerely,



Jeffrey Thurnau
Attorney for Applicant
Reg. No. 42,183
303-744-4743

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